

Claims

1. A mobile platform for conducting and monitoring in-field administration and coordination of emergency response activities comprising:

5 an all-terrain vehicle, said all-terrain vehicle having the capacity to accommodate at least two persons and having load bearing members that are one type selected from the group consisting of at least six wheels, at least two tracks, and a combination of a plurality of wheels and tracks, said all-terrain vehicle having the capability, without requiring in-field modification by an operator, of traversing multiple off-road surfaces that include each of sand, mud, snow,
10 swampland, thickly wooded areas, ice, grasslands, man-made rubble and debris, surfaces having angles of about at least thirty degrees from horizontal, and floatably operating on waterways;

electronic communication equipment, said communication equipment having the capabilities of being moved across the multiple off-road surfaces with said platform to a first remote location, of receiving, while being located at the first remote location, at least two types
15 of wireless communication transmissions from one or more additional remote locations, and, while being located at the first remote location, of transmitting at least two types of wireless communication transmissions from said mobile platform to the one or more additional remote locations;

said communication equipment having, while being located at the first remote location,
20 the further capabilities of receiving an incoming signal of a first signal type and regenerating and relaying the incoming signal of the first signal type as a second signal type that is different from the first signal type, and of receiving an incoming signal of the second signal type and regenerating and relaying the incoming signal of the second signal type as a signal of the first signal type; and

an environmental monitoring station having the capabilities of being moved across the multiple off-road surfaces with said platform to the first remote location and of measuring environmental conditions surrounding said platform.

- 5 2. The mobile platform of claim 1 wherein said communication equipment is capable of amplifying at least one of the incoming signals of the first signal type and of the second signal type when regenerating and relaying the incoming signals as transmitted signals.
3. The mobile platform of claim 1 wherein said load bearing members of said all-terrain
10 vehicle exert a downward pressure of no more than about four pounds per square inch.
4. The mobile platform of claim 1 wherein said load bearing members of said all-terrain vehicle exert a downward pressure of no more than about one pound per square inch.
- 15 5. The mobile platform of claim 1 wherein said all-terrain vehicle has a length of no greater than about 15 feet.
6. The mobile platform of claim 1 wherein said electronic communication equipment has the capability of relaying signals received from a second remote location to a satellite for
20 transmission by the satellite to a third remote location.
7. The mobile platform of claim 1 wherein said electronic communication equipment includes a cellular telephone.

8. The mobile platform of claim 1 wherein said electronic communication equipment includes a UHF/VHF radio.

9. The mobile platform of claim 1 wherein said electronic communication equipment
5 includes a high band/low band radio.

10. The mobile platform of claim 1 further comprising a microprocessor, said microprocessor being interfaced with said electronic communication equipment to allow a user to electronically control said electronic communication equipment.

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11. The mobile platform of claim 1 further comprising a microprocessor, said microprocessor being interfaced with said electronic communication equipment to receive information received by said electronic communication equipment as a signal of at least one of the first and second signal types and to allow an operator to electronically manipulate the information received.

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12. The mobile platform of claim 1 further comprising a microprocessor, said microprocessor being interfaced with said electronic communication equipment to transfer information from said microprocessor to said electronic communication equipment for transmission as a signal of at least one of the first and second signal types to a second remote
20 location.

13. The mobile platform of claim 1 further comprising a microprocessor, said microprocessor being interfaced with said environmental monitoring station to receive information of

environmental conditions measured by said environmental monitoring station and to allow an operator to electronically manipulate the information received.

14. The mobile platform of claim 1 further comprising a microprocessor, said microprocessor
5 being interfaced with said environmental monitoring station to receive information of environmental conditions measured by said environmental monitoring station, said microprocessor being further interfaced with said electronic communication equipment to allow said electronic communication equipment to transmit information of environmental conditions measured by said environmental monitoring station as a signal of at least one of the first and
10 second signal types to a second remote location.

15. The mobile platform of claim 1 further comprising a microprocessor, said microprocessor having a wireless connection to the Internet.

15 16. The mobile platform of claim 1 wherein said electronic communication equipment has the capability of receiving signals from a satellite and relaying the signals from the satellite to a second remote location.

17. The mobile platform of claim 1 wherein said electronic communication equipment
20 includes a satellite communication system having the capability of receiving signals from a satellite and relaying the signals from the satellite to a second remote location, said satellite communication system being self-contained in a handset.

18. The mobile platform of claim 1 wherein said electronic communication equipment includes a satellite communication system having the capability of receiving signals from a satellite and relaying the signals from the satellite to a second remote location, said satellite communication system being self-contained in a handset, said satellite communication system having a global positioning system contained therein.

19. The mobile platform of claim 1 wherein said electronic communication equipment includes a satellite communication system having the capability of receiving signals from a satellite and relaying the signals from the satellite to a second remote location, said satellite communication system having an antenna dish mounted on said platform.

20. The mobile platform of claim 1 wherein said electronic communication equipment includes a satellite communication system having the capability of receiving signals from a satellite and relaying the signals from the satellite to a second remote location, said satellite communication system having a folding, stand-alone dish antenna system.

21. The mobile platform of claim 1 wherein said electronic communication equipment has the capability of relaying signals to a satellite for transmission to a third remote location, said environmental monitoring station being electronically connected to said electronic communication equipment to allow information about measured environmental conditions to be transmitted through the satellite to the third remote location.

22. The mobile platform of claim 1 wherein said electronic communication equipment has the capability of relaying signals to a satellite for transmission to a third remote location, said

mobile platform further comprising a microprocessor, said microprocessor being interfaced with said environmental monitoring station to receive information of environmental conditions measured by said environmental monitoring station, said microprocessor being further interfaced with said electronic communication equipment to allow said computer to transfer the information of measured environmental conditions to said electronic communication equipment for relaying to the satellite and transmission of the information to the third remote location.

23. The mobile platform of claim 1 further comprising a personal computer, said personal computer having emergency reference software loaded thereon that is accessible by an operator when said platform is at the first remote location.

24. The mobile platform of claim 1 further comprising a personal computer, said personal computer having topographical mapping software loaded thereon that is accessible by an operator when said platform is at the first remote location.

25. The mobile platform of claim 1 further comprising a ground penetrating radar system for detecting subterranean information.

26. The mobile platform of claim 1 further comprising a ground penetrating radar system for detecting subterranean information, said electronic communication equipment having the capability of transmitting subterranean information detected by said ground penetrating radar to a second remote location as at least one of said first and second signal types.

27. The mobile platform of claim 1 wherein said electronic communication equipment has the capability of relaying signals to a satellite for transmission to a third remote location, said mobile platform further comprising a ground penetrating radar system for detecting subterranean information, said electronic communication equipment having the capability of relaying
5 subterranean information detected by said ground penetrating radar to the satellite for transmission to the third remote location.

28. The mobile platform of claim 1 further comprising a cage to protect passengers within said all-terrain vehicle, said cage having a frame that includes at least one roll bar, a brush guard
10 for clearing obstacles from the path of the passengers during forward movement of said all terrain vehicle, and a mesh screen for protecting passengers from brush and debris from outside of said all-terrain vehicle.

29. The mobile platform of claim 1 further comprising a cage to protect passengers within
15 said all-terrain vehicle, said cage having a frame that includes at least one roll bar, a brush guard for clearing obstacles from the path of the passengers during forward movement of said all terrain vehicle, and a mesh screen for protecting passengers from brush and debris from outside of said all-terrain vehicle, said cage having a construction that allows it to function as an amplifying antenna to improve the transmission and reception of radio signals by said electronic
20 communication equipment of said platform.

30. The mobile platform of claim 1 wherein said all-terrain vehicle includes a body that encloses mechanical components of said vehicle to shield the mechanical components from

external objects and water that said vehicle contacts when said vehicle travels across ground and waterways.

31. The mobile platform of claim 1 further comprising a megaphone for broadcasting audible
5 signals from said platform.

32. The mobile platform of claim 1 further comprising a winch for pulling objects and for pulling said platform itself across terrain.

10 33. The mobile platform of claim 1 wherein said environmental monitoring station takes environmental measurements chosen from the group consisting of wind velocity, temperature, relative humidity, barometric pressure, the presence of radiation, the presence of chemical agents, the presence of biological agents, dew point, wind chill, heat index, rainfall, wind gusts, cloud base height, and air density.

15 34. The mobile platform of claim 1 wherein said environmental monitoring station includes an anemometer and a wind vane for measuring wind velocity.

35. The mobile platform of claim 1 wherein said environmental monitoring station includes
20 an anemometer and a wind vane for measuring wind velocity, said anemometer and said wind vane being positioned on said platform with a removable stand.

36. The mobile platform of claim 1 wherein said electronic communication equipment further comprises a global positioning system.

37. The mobile platform of claim 1a further comprising an infrared vision device.

38. A mobile platform for conducting and monitoring in-field administration and
5 coordination of emergency response activities comprising:

an all-terrain vehicle, said all-terrain vehicle having the capacity to accommodate at least
two persons and having load bearing members that are one type selected from the group
consisting of at least six wheels, at least two tracks, and a combination of a plurality of wheels
and tracks, said all-terrain vehicle having the capability, without requiring in-field modification
10 by an operator, of traversing multiple off-road surfaces that include each of sand, mud, snow,
swampland, thickly wooded areas, ice, grasslands, man-made rubble and debris, surfaces having
angles of about at least thirty degrees from horizontal, and floatably operating on waterways;

electronic communication equipment, said communication equipment having the
capabilities of being moved across the multiple off-road surfaces with said platform to a first
15 remote location, of receiving, while being located at the first remote location, at least two types
of wireless communication transmissions from one or more additional remote locations, and,
while being located at the first remote location, of transmitting at least two types of wireless
communication transmissions from said mobile platform to the one or more additional remote
locations;

20 said communication equipment having, while being located at the first remote location,
the further capabilities of receiving an incoming signal of a first signal type and regenerating and
relaying the incoming signal of the first signal type as a second signal type that is different from
the first signal type, and of receiving an incoming signal of the second signal type and

regenerating and relaying the incoming signal of the second signal type as a signal of the first signal type;

an environmental monitoring station having the capabilities of being moved across the multiple off-road surfaces with said platform to the first remote location and of measuring
5 environmental conditions surrounding said platform; and

electronic positioning equipment, said positioning equipment being capable of providing, at the first remote location, information about the position of said mobile platform.

39. The mobile platform of claim 38 wherein said communication equipment is capable of
10 amplifying at least one of the incoming signals of the first signal type and of the second signal type when regenerating and relaying the incoming signals as transmitted signals.

40. The mobile platform of claim 38 wherein said load bearing members of said all-terrain vehicle exert a downward pressure of no more than about four pounds per square inch.

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41. The mobile platform of claim 38 wherein said load bearing members of said all-terrain vehicle exert a downward pressure of no more than about one pound per square inch.

42. The mobile platform of claim 38 wherein said all-terrain vehicle has a length of no
20 greater than about 15 feet.

43. The mobile platform of claim 38 wherein said electronic communication equipment has the capability of relaying signals received from a second remote location to a satellite for transmission by the satellite to a third remote location.

44. The mobile platform of claim 38 wherein said electronic communication equipment includes a cellular telephone.

5 45. The mobile platform of claim 38 wherein said electronic communication equipment includes a UHF/VHF radio.

46. The mobile platform of claim 38 wherein said electronic communication equipment includes a high band/low band radio.

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47. The mobile platform of claim 38 further comprising a microprocessor, said microprocessor being interfaced with said electronic communication equipment to allow a user to electronically control said electronic communication equipment.

15 48. The mobile platform of claim 38 further comprising a microprocessor, said microprocessor being interfaced with said electronic communication equipment to receive information received by said electronic communication equipment as a signal of at least one of the first and second signal types and to allow an operator to electronically manipulate the information received.

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49. The mobile platform of claim 38 further comprising a microprocessor, said microprocessor being interfaced with said electronic communication equipment to transfer information received from said microprocessor to said electronic communication equipment for

transmission as a signal of at least one of the first and second signal types to a second remote location.

50. The mobile platform of claim 38 further comprising a microprocessor, said
5 microprocessor being interfaced with said environmental monitoring station to receive information of environmental conditions measured by said environmental monitoring station and to allow an operator to electronically manipulate the information received.

51. The mobile platform of claim 38 further comprising a microprocessor, said
10 microprocessor being interfaced with said environmental monitoring station to receive information of environmental conditions measured by said environmental monitoring station, said microprocessor being further interfaced with said electronic communication equipment to allow said electronic communication equipment to transmit information of environmental conditions measured by said environmental monitoring station as a signal of at least one of the
15 first and second signal types to a second remote location.

52. The mobile platform of claim 38 further comprising a microprocessor, said microprocessor having a wireless connection to the Internet.

20 53. The mobile platform of claim 38 wherein said electronic communication equipment has the capability of receiving signals from a satellite and relaying the signals from the satellite to a second remote location.

54. The mobile platform of claim 38 wherein said electronic communication equipment includes a satellite communication system having the capability of receiving signals from a satellite and relaying the signals from the satellite to a second remote location, said satellite communication system being self-contained in a handset.

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55. The mobile platform of claim 38 wherein said electronic communication equipment includes a satellite communication system having the capability of receiving signals from a satellite and relaying the signals from the satellite to a second remote location, said satellite communication system being self-contained in a handset, said satellite communication system

10 having a global positioning system contained therein.

56. The mobile platform of claim 38 wherein said electronic communication equipment includes a satellite communication system having the capability of receiving signals from a satellite and relaying the signals from the satellite to a second remote location, said satellite

15 communication system having an antenna dish mounted on said platform.

57. The mobile platform of claim 38 wherein said electronic communication equipment includes a satellite communication system having the capability of receiving signals from a satellite and relaying the signals from the satellite to a second remote location, said satellite

20 communication system having a folding, stand-alone dish antenna system.

58. The mobile platform of claim 38 wherein said electronic communication equipment has the capability of relaying signals to a satellite for transmission to a third remote location, said environmental monitoring station being electronically connected to said electronic

communication equipment to allow information about measured environmental conditions to be transmitted through the satellite to the third remote location.

59. The mobile platform of claim 38 wherein said electronic communication equipment has the capability of relaying signals to a satellite for transmission to a third remote location, said mobile platform further comprising a microprocessor, said microprocessor being interfaced with said environmental monitoring station to receive information of environmental conditions measured by said environmental monitoring station, said microprocessor being further interfaced with said electronic communication equipment to allow said computer to transfer the information of measured environmental conditions to said electronic communication equipment for relaying to the satellite and transmission of the information to the third remote location.

60. The mobile platform of claim 38 further comprising a personal computer, said personal computer having emergency reference software loaded thereon that is accessible by an operator when said platform is at the first remote location.

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61. The mobile platform of claim 38 further comprising a personal computer, said personal computer having topographical mapping software loaded thereon that is accessible by an operator when said platform is at the first remote location.

62. The mobile platform of claim 38 further comprising a ground penetrating radar system for detecting subterranean information.

63. The mobile platform of claim 38 further comprising a ground penetrating radar system for detecting subterranean information, said electronic communication equipment having the capability of transmitting subterranean information detected by said ground penetrating radar to a second remote location as at least one of said first and second signal types.

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64. The mobile platform of claim 38 wherein said electronic communication equipment has the capability of relaying signals to a satellite for transmission to a third remote location, said mobile platform further comprising a ground penetrating radar system for detecting subterranean information, said electronic communication equipment having the capability of relaying
10 subterranean information detected by said ground penetrating radar to the satellite for transmission to the third remote location.

65. The mobile platform of claim 38 further comprising a cage to protect passengers within said all-terrain vehicle, said cage having a frame that includes at least one roll bar and a brush
15 guard for clearing obstacles from the path of the passengers during forward movement of said all terrain vehicle, said cage having a mesh screen for protecting passengers from brush and debris from outside of said all-terrain vehicle.

66. The mobile platform of claim 38 further comprising a cage to protect passengers within
20 said all-terrain vehicle, said cage having a frame that includes at least one roll bar, a brush guard for clearing obstacles from the path of the passengers during forward movement of said all terrain vehicle, and a mesh screen for protecting passengers from brush and debris from outside of said all-terrain vehicle, said cage having a construction that allows it to function as an

amplifying antenna to improve the transmission and reception of radio signals by said electronic communication equipment of said platform.

67. The mobile platform of claim 38 wherein said electronic positioning equipment is
5 interfaced to said communications equipment to allow the information about the position of said mobile platform, at the first remote location, to be transmitted by at least one of the first and second signal types to a second remote location.

68. The mobile platform of claim 38 wherein said electronic positioning equipment is
10 interfaced to said communications equipment to allow the information about the position of said mobile platform, at the first remote location, to be transmitted by at least one of the first and second signal types to a second remote location.

69. The mobile platform of claim 38 wherein said electronic communication equipment has
15 the capability of relaying signals to a satellite for transmission to a third remote location, said electronic positioning equipment is interfaced to said communications equipment to allow the information about the position of said mobile platform, at the first remote location, to be relayed to the satellite for transmission by the satellite to the third remote location.

20 70. The mobile platform of claim 38 further comprising a microprocessor, said microprocessor being interfaced with said electronic positioning equipment to receive information about the position of said mobile platform at the first remote location and to allow an operator to electronically manipulate the information received.

71. The mobile platform of claim 38 further comprising a microprocessor, said electronic communication equipment having the capability of relaying signals to a satellite for transmission to a third remote location, said microprocessor being interfaced to said electronic communication equipment and to said electronic positioning equipment to allow said microprocessor to receive
5 and transfer information about the position of said mobile platform for relaying to the satellite for transmission of the information to the third remote location.

72. The mobile platform of claim 38 wherein said all-terrain vehicle includes a body that encloses mechanical components of said vehicle to shield the mechanical components from
10 external objects and water that said vehicle contacts when said vehicle travels across ground and waterways.

73. The mobile platform of claim 38 further comprising a megaphone for broadcasting audible signals from said platform.

15 74. The mobile platform of claim 38 further comprising a winch for pulling objects and for pulling said platform itself across terrain.

75. The mobile platform of claim 38 wherein said environmental monitoring station takes
20 environmental measurements chosen from the group consisting of wind velocity, temperature, relative humidity, barometric pressure, the presence of radiation, the presence of chemical agents, the presence of biological agents, dew point, wind chill, heat index, rainfall, wind gusts, cloud base height, and air density.

76. The mobile platform of claim 38 wherein said environmental monitoring station includes an anemometer and a wind vane for measuring wind velocity.

77. The mobile platform of claim 38 wherein said environmental monitoring station includes
5 an anemometer and a wind vane for measuring wind velocity, said anemometer and said wind vane being positioned on said platform with a removable stand.

78. The mobile platform of claim 38 wherein said electronic communication equipment further comprises a global positioning system.

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79. The mobile platform of claim 38 wherein said electronic positioning equipment further comprises a global positioning system.

80. The mobile platform of claim 38 further comprising an infrared vision device.

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81. A method of conducting and monitoring in-field administration and coordination of emergency response activities on a mobile platform comprising:

providing an all-terrain vehicle to accommodate and transport at least two persons to a remote in-field location, the all-terrain vehicle serving as a vehicle for the mobile platform and
20 having load bearing members that are one type selected from the group consisting of at least six wheels, at least two tracks, and a combination of a plurality of wheels and tracks, said all-terrain vehicle having the capability, without requiring in-field modification by an operator, of traversing multiple off-road surfaces that include each of sand, mud, snow, swampland, thickly

wooded areas, ice, grasslands, man-made rubble and debris, surfaces having angles of about at least thirty degrees from horizontal, and floatably operating on waterways;

providing electronic communication equipment in the mobile platform and using the capability of the mobile platform to traverse multiple off-road surfaces to move the electronic

5 communication equipment to a first remote location;

using the communication equipment to receive, at the first remote location, at least two types of wireless communication transmissions from one or more additional remote locations, and using the communication equipment to transmit at least two types of wireless communication transmissions from the mobile platform to the one or more additional remote
10 locations, using said communication equipment to receive a first signal type and to regenerate and relay said first signal type as a second signal type that is different from said first signal type, using said communication equipment to receive said second signal type and regenerate and relay said second signal type as said first signal type; and

providing an environmental monitoring station in the platform, using the monitoring
15 station to measure environmental conditions surrounding the platform, and using the electronic communication equipment to transmit measurements taken by the monitoring station.

82. The method of conducting and monitoring in-field administration and coordination of emergency response activities of claim 81 further comprising providing electronic positioning
20 equipment in the mobile platform and using the positioning equipment to provide information of the position of the mobile platform to a remote location through the electronic communication equipment.

83. The method of conducting and monitoring in-field administration and coordination of emergency response activities of claim 81 further comprising using the platform as a tactical assault vehicle.

5 84. The method of conducting and monitoring in-field administration and coordination of emergency response activities of claim 81 further comprising amplifying with said communication equipment at least one of the incoming signals of the first signal type and of the second signal type when regenerating and relaying the incoming signals as transmitted signals.

10 85. The method of conducting and monitoring in-field administration and coordination of emergency response activities of claim 81 further comprising using the electronic communication equipment to relay signals received from a second remote location to a satellite for transmission by the satellite to a third remote location.

15 86. The method of conducting and monitoring in-field administration and coordination of emergency response activities of claim 81 further comprising using a microprocessor to electronically control the electronic communication equipment.

87. The method of conducting and monitoring in-field administration and coordination of
20 emergency response activities of claim 81 further comprising:

interfacing a microprocessor to receive information received by said electronic communication equipment as a signal of at least one of the first and second signal types; and electronically manipulating the information received with the microprocessor.

88. The method of conducting and monitoring in-field administration and coordination of emergency response activities of claim 81 further comprising:

interfacing a microprocessor with the electronic communication equipment to transfer information from the microprocessor to the electronic communication equipment; and

5 transmitting information from the microprocessor with the electronic communication equipment as a signal of at least one of the first and second signal types to a second remote location.

89. The method of conducting and monitoring in-field administration and coordination of emergency response activities of claim 81 further comprising:

interfacing a microprocessor with the environmental monitoring station to receive information of environmental conditions measured by the environmental monitoring station; and

electronically manipulating the information of environmental conditions measured by the environmental monitoring station with the microprocessor.

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90. The method of conducting and monitoring in-field administration and coordination of emergency response activities of claim 81 further comprising:

interfacing a microprocessor with an environmental monitoring station to receive information of environmental conditions measured by the environmental monitoring station; and

20 interfacing said microprocessor with said electronic communication equipment to allow said electronic communication equipment to transmit the information of the environmental conditions as a signal of at least one of the first and second signal types to a second remote location.

91. The method of conducting and monitoring in-field administration and coordination of emergency response activities of claim 81 further comprising using the electronic communication equipment to receive signals from a satellite and to relay the signals from the satellite to a second remote location.

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92. The method of conducting and monitoring in-field administration and coordination of emergency response activities of claim 81 further comprising:

interfacing the electronic communication equipment to the environmental monitoring station to allow information about measured environmental conditions to be transmitted to a satellite; and

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using the satellite to relay the information to a third remote location.

93. The method of conducting and monitoring in-field administration and coordination of emergency response activities of claim 81 further comprising:

interfacing a microprocessor to the environmental monitoring station to receive information of environmental conditions measured by the environmental monitoring station; and

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interfacing the microprocessor to the electronic communication equipment to allow the computer to transfer the information of the environmental conditions to the electronic communication equipment for relaying to a satellite and transmission of the information to a third remote location.

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94. The method of conducting and monitoring in-field administration and coordination of emergency response activities of claim 81 further comprising using a ground penetrating radar to detect subterranean information.

95. The method of conducting and monitoring in-field administration and coordination of emergency response activities of claim 81 further comprising:

using a ground penetrating radar to detect subterranean information; and

5 using the electronic communication equipment to transmit the detected subterranean information to a second remote location as at least one of the first and second signal types.

96. The method of conducting and monitoring in-field administration and coordination of emergency response activities of claim 81 further comprising:

10 using a ground penetrating radar to detect subterranean information; and

using the electronic communication equipment to relay the information about the detected subterranean information to a satellite for transmission to a third remote location.

97. The method of conducting and monitoring in-field administration and coordination of
15 emergency response activities of claim 81 further comprising protecting passengers within the all-terrain vehicle with a cage by using the cage to clear obstacles and debris from the path of the passengers during forward movement of the mobile platform.